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UNIT COSTS IN RECREATIONAL FACILITIES

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Of the $17.34 per capita paid in 1912 in cities of over 30,000 for all governmental costs, sixty-four cents per capita represent the expenditures for recreational facilities.[1] That is, of the total expenditures for governmental expenses 3.7 per cent went to recreational purposes, including museums, art galleries, bathing beaches, playgrounds, parks and all other recreational facilities. The total spent for recreation in 1910 was $16,108,808.00, or fifty-nine cents per capita; while in 1903 only thirty-four cents per capita were appropriated for this purpose. The per capita expenditure of the thirty-three "cities" of Massachusetts in 1908 was eighty-seven cents.[2] The 1914 Year Book of the Playground and Recreation Association of America shows 342 cities maintaining 2,402 playgrounds and recreation centers at a total expenditure of $5,700,223.81 for the year 1913. The Detroit Recreation Commission shows for the coming year a carefully drawn budget of forty items amounting to $169,299.00.

These facts indicate that recreational facilities are beginning to figure as items in the municipal budget. While the appropriations are as yet inadequate they are sufficiently large to be taken carefully into account, and they are rapidly increasing. A further indication of the growing importance of this item in the budget is the fact that the usual practice is to establish such facilities under private initiative, playground and recreation associations and the like, and when they have proven successful to have them taken over by the cities. This means that in the future the cities are likely to take over many of the burdens now resting on private shoulders. There is cropping up also a tendency to take many recreational facilities out of the "commercialized amusement" class and run

[1] *Financial Statistics of Cities Having a Population of Over 30,000.* United States Census Bulletin, 1912.

[2] *The Cost of Municipal Government in Massachusetts.* 1908, p. 17.

them in the interest of good morals, sound amusement and efficient citizenship rather than in the interest of profit. The municipal dance halls of Chicago and the municipal swimming centers of Philadelphia are good examples of this trend. This movement toward public coöperation in recreational facilities is natural and inevitable, for the social conscience is waking to the need for wholesome recreation for all. Furthermore only in this way can adequate facilities be provided within reach of all and at small individual cost.

The logical conclusion is that there is imperative need for careful analysis and standardization of the costs of these facilities. In order to plan improvements wisely, to estimate budget items, to compare the results which are secured in various cities, some bases of judgment and comparison are essential. In the matter of cost accounting most cities, as most recreation leagues and associations, are woefully lax. Cities run their playgrounds and recreation centers under the Department of Parks, or the city owns the parks or playgrounds and a private association equips them and directs their activities; or the Board of Education and the Bureau of Recreation handle the problem jointly. Some cities do not keep separate the attendance records of the various centers, some keep no records. At times the cost of operation is not separately kept for each center; again the costs of operation and of improvement are not separated. Frequently, when reasonably good figures are given, no careful description is given of the extent and character of the equipment and activities of the particular center. Even the terminology is varied and confusing. Thus this can as well be a plea for greater care and uniformity in reports and records as an analysis of available figures.

The reports of Chicago and Philadelphia contain much that is lacking in other reports and an analysis of them is more valuable than generalizations from less complete reports.

Parks

The following table was compiled from the report of Chicago's South Park Commissioners, February 28, 1914:

TABLE No. 1

Park	Improvements[1]	Cost of operation, 1913	Attendance, 1913	Area, acres	Cost per capita, 1913	Cost per $1,000 of improvements	Cost per acre, 1913
Jackson Park	$2,995,573.46	$169,640.75	871,878	542.89	$0.19	$56.29	$312.47
Washington Park.	1,418,474.93	144,915.28	590,465	371	.24	102.16	390.60
Marquette Park..	336,400.38	17,770.16	53,810	322.68	.33	52.82	55.07
Calumet Park....	20,001.24	9,729.02	76,343	66.19	.127	486.45	146.97
Sherman Park....	491,176.88	44,282.61	732,741	60.60	.061	90.15	730.73
Ogden Park.....	503,277.74	44,209.59	685,758	60.54	.064	87.84	730.25
Palmer Park.....	302,529.05	41,702.87	433,647	40.48	.096	137.85	1,030.20
Hamilton Park...	247,146.92	35,025.24	529,149	29.95	.066	141.72	1,202.84
Bessemer Park ...	329,615.97	35,677.33	510,635	28.88	.069	108.24	1,235.36
Russell Square....	167,800.67	29,078.84	433,004	11.47	.069	173.29	2,535.12
Mark White Square.....	257,374.23	35,564.97	606,725	10	.058	138.18	3,556.49
Fuller Park.....	510,554.07	39,722.01	781,887	10	.05	77.80	3,972.20
Davis Square	214,486.25	36,033.61	610,380	10	.059	168.00	3,603.36
Armour Square...	181,496.70	31,374.80	434,720	10	.072	172.87	3,137.48
Cornell Square...	174,459.53	30,337.07	527,857	10	.057	173.90	3,033.70

[1] "Improvement" includes all equipment and improvements.

These parks naturally divide themselves into two groups, Jackson, Washington, Marquette and Calumet Parks, which are especially large, and the remaining eleven all of which have practically the same equipment and improvements. These consist of gymnasiums for men and women both indoor and outdoor, a field house, playgrounds for children, shower baths, swimming pools, tennis courts, ball fields and skating ponds. Jackson Park, the largest of all, contains some of the old World's Fair buildings, a yacht harbor, boating and fishing lagoons, facilities for baseball, tennis and ice skating, and two golf courses. Washington Park contains facilities for sports, a conservatory and rose garden and the administration building of the park commissioners. Marquette Park, in addition to facilities for sports, has a field house with a dance hall and the nurseries of the park commissioners. Calumet Park, though large, has few improvements except a public bathing beach along Lake Michigan with ample dressing facilities for bathers.

The most useful comparison, then, is between the last eleven parks, since these are very similar in equipment. The total improvements vary considerably. A study of the other columns reveals the fact that the cost of operation per acre varies inversely

with the acreage; also that the cost of operation per $1,000 of improvement varies inversely with the improvements and the acreage. In other words, the greater the acreage the less is the cost of operation per acre, while as the acreage and the improvements increase the less is the cost of operation per $1,000 of improvement.

In the case of these parks, attendance does not provide as useful a comparison as might be wished, since it is only the record of those participating in specific activities, and does not include those who may have been benefited by the park as a place for rest or an airing. However, it is interesting to notice that the cost of operation per unit of attendance varies comparatively little. The average cost of operation per unit of attendance upon activities for these eleven parks was .065 cents. It is *estimated* that the facilities of Jackson Park and Washington Park were enjoyed by 11,334,-716 and 11,650,000 visitors, respectively, during 1913. This would give a cost per unit of attendance of $0.015 for Jackson Park and $0.012 for Washington Park.

It is worthy of note that the cost of administration for all these parks was 5.19 per cent of the total cost of operation.

Playgrounds

The following table was compiled from the figures given by the Chicago Special Park Commission for the playgrounds under their charge during 1914.[3]

The equipment of these grounds varies from a single playfield to a separate athletic field, sand house and shelter platform, base-ball and foot ball field, and indoor gymnasium. There are from twenty-five to forty pieces of apparatus on each playground. The playgrounds are open all the year, have a skating pond for winter and at each there is at least one director and one attendant in charge throughout the year.

The figures show at what low cost playground facilities can be furnished. The average cost per unit of attendance for all the playgrounds was $0.0159. Here again the cost of operation per $1,000 of equipment and the cost per unit of attendance decreases with the increase of equipment.

[3] *Report of Special Park Commission*, Chicago, December 31, 1914.

TABLE NO. 2

Playground	Equipment[1]	Cost of operation, 1914	Attendance, 1914	Area, square feet	Cost per capita, 1914	Cost per $1,000 of equipment
Wrightwood	$16,000	$3,815.06	348,020	361 x 454	$0.0109	$23.84
Beutner	10,000	3,322.98	308,685	258 x 546	.0107	33.23
Holden	10,000	3,205.39	196,750	116 x 696	.016	32.05
McCormick	9,000	3,335.92	212,350	125 x 275	.015	37.06
Corkery	9,000	2,910.26	254,284	265 x 164	.011	32.33
Fiske	8,000	3,139.66	215,545	264 x 174	.014	39.24
Christopher	8,000	2,993.77	200,351	125 x 275	.014	37.42
Commercial Club	8,000	2,722.44	114,958	120 x 123 125 x 200	.023	34.03
Audubon	8,000	2,098.84	173,476	138 x 264	.012	26.23
Moseley	7,000	2,416.41	188,875	200 x 200	.012	34.52
Drake	7,000	2,239.05	110,162	181 x 194	.020	31.98
Sampson	7,000	3,203.42	217,991	125 x 215	.014	45.76
McLaren	7,000	2,186.82	98,750	185 x 175	.022	31.24
Adams	7,000	2,101.25	115,172	102 x 288	.018	30.01
Hamlin	6,000	3,060.52	201,235	300 x 598	.015	51.01
Dante	5,000	2,320.34	175,261	235 x 95	.013	46.40
Washington	5,000	2,176.41	169,420	128 x 174	.012	43.53
Northwestern	4,000	2,363.45	144,970	70 x 350	.016	59.08
Orleans	4,000	2,135.26	59,919	126 x 136	.035	53.38

[1] Approximate.

The per capita cost here is much smaller, naturally, than that for the parks, since in the first place there are many more expenses such as policing, care of lawns, landscape gardening, etc., in the case of parks, and secondly, the complete record of attendance at the parks is not secured. If we take the per capita cost based on the estimated attendance at Jackson and Washington Parks we find that the figures $0.015 and $0.012 respectively compare well with the average per capita cost of the playgrounds, $0.0159. However, the additional expenses which the park features entail are cause for the fact that the cost of operation per $1,000 of improvement for parks is much higher than that for playgrounds. In the case of the playgrounds, salaries and wages amounted to 86.53 per cent of the cost of operation.

The figures for playground costs in Philadelphia are given in the following table:[4]

[4] Compiled from report of Board of Recreation, January 1, 1914.

TABLE No. 3

Playground	Cost of operation, 1913	Attendance, 1913	Cost per capita, 1913	Months open
Athletic Park	$4,769.28	113,822	$0.041	2
Kingsessing Park	5,323.84	131,341	.04	9
Chestnut St. Pier	6,379.46	133,371	.047	12
Coxe	1,603.34	87,483	.018	10
Disston Park	4,539.12	202,826	.022	12
Tunfield	6,600.49	355,043	.018	12
Happy Hollow	7,237.72	162,054	.044	12
Point Breeze	600.90	21,999	.027	6
Race St. Pier	3,342.91	48,630	.068	4
Sherwood Park	13,120.49	291,146	.044	12
Shot Tower	1,116.09	82,332	.013	8
Starr Garden	13,420.10	360,269	.037	12
Viaduct	3,102.37	164,889	.018	12
Waterview	3,303.43	57,687	.05	7
Weccacoe	2,731.15	66,314	.041	8
Westmoreland	1,454.10	73,816	.019	7
Womrath	459.09	13,975	.032	4
East Germantown	538.14	42,151	.012	5
Friends' Meeting House	473.77	17,453	.027	2
Parkway	225.50	10,859	.02	2
Belfield	547.64	36,579	.015	4
Pomona	624.79	6,382	.097	4

The average cost of operation per capita for these playgrounds was $.0341 as compared with Chicago's figure of $.0159. A comparison between these averages is hardly fair, for in the first place Chicago's playgrounds were open all the year while most of Philadelphia's were not. Taking those that were, Chestnut Street Pier, Disston, Tunfield, Happy Hollow, Sherwood, Starr Garden and Viaduct, we find an average cost per capita of $.033. Five playgrounds open only four months show an average cost of $.044, while the five grounds open from six to eight months show an average cost of $.03. Thus, irrespective of the length of the playground term, Philadelphia is spending more per unit of attendance than Chicago. It also seems evident that keeping the playgrounds open during the winter months does not increase the per capita cost of operation, indicating that they are used to an extent which makes it worth while to run them all year.

The difference between Chicago and Philadelphia might be explained by the fact that a comparatively lower attendance raises the per capita cost. However, we find that while Philadelphia has a somewhat lower average attendance, 114,110 for 1913, compared with Chicago's average of 172,956, its average cost of operation per playground, $3,705.31 is much higher than Chicago's figure, $2,-618.28. Evidently, then, the difference is caused by a comparatively higher cost of operation.

The proportion of salaries and wages to the total cost of operation is 77.81 per cent as compared with 86.53 per cent for Chicago.

Bathing Beaches and Swimming Pools

For bathing beaches and swimming pools Chicago again has the best available figures as shown in the table below.

TABLE NO. 4

Pool or Beach	Cost of operation	Attendance, one year	Cost per capita
Rocky Ledge Beach[1]	$3,029.59	111,565	$0.027
Ohio Street Beach[1]	1,744.52	152,708	.011
Washington Heights Pool[1]	2,710.78	51,717	.052
Mark White	1,988.57	85,218	.023
Armour	921.74	55,399	.016
Fuller	2,253.95	66,066	.034
Cornell	1,134.21	48,738	.023
Russell	1,269.66	36,611	.034
Sherman	1,125.12	92,525	.012
Ogden	1,765.27	105,838	.016
Bessemer	1,658.64	70,942	.023
Palmer	1,491.23	79,889	.018
Davis	1,428.78	60,334	.023
Calumet Beach	1,983.59	59,993	.033
Jackson Beach	7,496.67	176,751	.042
McKinley	3,232.29	82,211	.039

[1] From *Special Park Commissioners' Report*, December 31, 1914. All others are for 1913 from *Report of South Park Commissioners*, February 28, 1914.

The four bathing beaches, Rocky Ledge, Ohio Street, Calumet and Jackson show an average cost per unit of attendance of $.028. There is little difference in the case of the twelve swimming pools, which had an average cost of $.026. These pools and beaches were

open for the months June to September, inclusive. The slight cost of operating a beach like Ohio Street beach, or a pool like Sherman Park pool, a little over one cent per unit of attendance, is the most effective argument for municipal recreational facilities.

In Philadelphia, fourteen municipal swimming centers during ten weeks gave 26,533 swimming lessons at a total expenditure of $2,739.33, or a cost of 10.3 cents per lesson.

Miscellaneous

Philadelphia conducted supervised play during July and August 1913, under the Board of Recreation, in 106 school yards. The average cost per yard was $385.51 or a cost of $.041 for every time a child used the school yard. Their home and school gardens had an attendance of 173,307 during six months with an expenditure of $11,138.86, making a cost of $.064 per unit of attendance.

The playground in Reading, Pa., had in 1914 an attendance of 204,107 at a cost per capita of $.023. This compares favorably with the average cost for Chicago's playgrounds of $.0159.

The municipal dance halls of Chicago are able to sell two admissions for twenty-five cents, with free checking service included. Jackson Park, Chicago, has one nine-hole and one eighteen-hole golf course. During 1913 more than 300,000 persons played over these courses at an average cost of a little over five cents each.

What one small city can do is told by a correspondent of the *Playground Magazine*.[5] Amherst, Nova Scotia, with a population of 10,000, had a recreation campaign during the summer of 1913. The high school grounds and one other plot were used as centers. Three experienced workers were employed at a cost of $310.00 and $169.00 were spent on work and equipment. It is estimated that the children's games, athletics, ball games and other sports were participated in by 1,700 different persons at an average cost of $.27 per person for the summer. The total attendance at all activities was more than 17,000 or about $.027 per unit of attendance.

This analysis shows the comparatively low cost of recreational facilities furnished by public coöperation. It is not pertinent or necessary here to discuss their importance. Recreation is an item in the city budget and is rapidly growing larger. The need now is for careful cost and attendance records and greater care and uniformity in reports.

[5] *Playground Magazine*, February, 1914, p. 445.